

L Number	Hits	Search Text	DB	Time stamp
11	1228	438/15,111,118,119,123,782.ccls. and adhesive	USPAT; US-PGPUB	2002/10/03 16:30
12	292	(438/15,111,118,119,123,782.ccls. and adhesive) and (finger or bars)	USPAT; US-PGPUB	2002/10/03 15:11
13	936	(438/15,111,118,119,123,782.ccls. and adhesive) not ((438/15,111,118,119,123,782.ccls. and adhesive) and (finger or bars))	USPAT; US-PGPUB	2002/10/03 15:17
14	445	((438/15,111,118,119,123,782.ccls. and adhesive) not ((438/15,111,118,119,123,782.ccls. and adhesive) and (finger or bars))) and @ad<=19970805	USPAT; US-PGPUB	2002/10/03 15:17
15	445	((438/15,111,118,119,123,782.ccls. and adhesive) not ((438/15,111,118,119,123,782.ccls. and adhesive) and (finger or bars))) and @ad<=19970805 and adhesive	USPAT; US-PGPUB	2002/10/03 15:28
16	1	("6200852").PN.	USPAT; US-PGPUB	2002/10/03 15:32
17	1	("5773322").PN.	USPAT; US-PGPUB	2002/10/03 15:33
18	1	("5304842").PN.	USPAT; US-PGPUB	2002/10/03 15:33
19	1	("5923957").PN.	USPAT; US-PGPUB	2002/10/03 15:35
20	1	("6204093").PN.	USPAT; US-PGPUB	2002/10/03 15:40
21	1		USPAT	2002/10/03 15:35
22	1		USPAT	2002/10/03 15:35
23	1		USPAT	2002/10/03 15:35
24	1		USPAT	2002/10/03 15:36
25	1		USPAT	2002/10/03 15:36
26	1		USPAT	2002/10/03 15:36
27	1		USPAT	2002/10/03 15:37
28	1		USPAT	2002/10/03 15:37
29	1		USPAT	2002/10/03 15:37
30	1		USPAT	2002/10/03 15:37
31	1		USPAT	2002/10/03 15:37
32	1		USPAT	2002/10/03 15:38
33	1		USPAT	2002/10/03 15:38
34	1		USPAT	2002/10/03 15:38
35	1		USPAT	2002/10/03 15:39
36	1		USPAT	2002/10/03 15:39
37	1		USPAT	2002/10/03 15:39
38	1	("5286679").PN.	USPAT; US-PGPUB	2002/10/03 15:41
39	2973	(lead near frame) and adhesive	EPO; JPO; DERWENT; IBM_TDB	2002/10/03 15:42
40	935	((lead near frame) and adhesive) and method	EPO; JPO; DERWENT; IBM_TDB	2002/10/03 15:42
41	195	((lead near frame) and adhesive) and method) and (applying or coating or attaching)	EPO; JPO; DERWENT; IBM_TDB	2002/10/03 15:43
42	1	("5733800").PN.	USPAT; US-PGPUB	2002/10/03 16:31
43	139	loc and viscous and packaging	USPAT; US-PGPUB	2002/10/03 16:37
44	45	(loc and viscous and packaging) and @ad<=19970805	USPAT; US-PGPUB	2002/10/03 16:37
45	1290	micron and viscous and packaging	USPAT; US-PGPUB	2002/10/03 16:37
46	714	(micron and viscous and packaging) and @ad<=19970805	USPAT; US-PGPUB	2002/10/03 16:37
47	522	((micron and viscous and packaging) and @ad<=19970805) and (applying or coating)	USPAT; US-PGPUB	2002/10/03 16:38
48	323	((micron and viscous and packaging) and @ad<=19970805) and adhesive	USPAT; US-PGPUB	2002/10/03 16:38

enough, maybe straightly

CLIPPEDIMAGE= JP406291156A

PAT-NO: JP406291156A

DOCUMENT-IDENTIFIER: JP 06291156 A

TITLE: METHOD OF APPLYING ADHESIVE TO LEAD FRAME FOR
SEMICONDUCTOR DEVICE

PUBN-DATE: October 18, 1994

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APPL-NO: JP05079292

APPL-DATE: April 6, 1993

INT-CL (IPC): H01L021/52;B05D007/00 ;B05D007/24 ;H01L023/50

ABSTRACT:

PURPOSE: To easily apply a minimum volume of adhesive to the portions where semiconductor elements of inner lead are to be fixed by rotating a coating roll on which an insulating adhesive is coated while moving this coating roll or a lead frame horizontally.

CONSTITUTION: A lower portion of a coating roll 12 is dipped in an adhesive 11 placed in a liquid container 13, and a control plate 14 for controlling the coating thickness of the adhesive 11 is disposed near the coating roll 12.

Then, a lead frame 1 is sent horizontally while rotating the coating roll 12 by pressing roll 15 against the lead frame, thereby sequentially coating the adhesive to the lead frame 1. By doing this, the coating layer of the adhesive 11 can be made thinner with a minimum volume without striding the whole of a plurality of inner leads disposed in parallel.

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DERWENT-ACC-NO: 1998-373255

DERWENT-WEEK: 199832

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TITLE: Semiconductor device manufacturing method e.g. for LSI - involves coating lead member on lead frame with adhesive agent containing fusible resin, insulating powder and solvent

----- KWIC -----

Semiconductor device manufacturing method e.g. for LSI - involves coating lead member on lead frame with adhesive agent containing fusible resin, insulating powder and solvent

The method involves coating an insulating adhesive agent (3) to a lead member on a lead frame (6) by stamping. The adhesive agent contains a fusible resin, an insulating powder and a solvent.

Bonding of a semiconductor chip is performed by heating the coating of adhesive agent. Thereby the residual rate of a solvent is reduced and curvature deformation of chip is prevented.

ADVANTAGE - Reduces solvent residual rate. Prevents curvature deformation of large chips. Prevents generation of gap and crack in cementing layer. Improves reliability and stabilises adhesive strength.

SEMICONDUCTOR DEVICE MANUFACTURE METHOD LSI COATING LEAD MEMBER LEAD FRAME ADHESIVE AGENT CONTAIN FUSE RESIN INSULATE POWDER SOLVENT

DERWENT-ACC-NO: 1998-229839

DERWENT-WEEK: 200256

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TITLE: Underfill coating e.g. for leads-over-chip (LOC) package - involves providing an adhesively coated material with lead-frame superposed on die with active surface adjacent to lead frame

----- KWIC -----

Underfill coating e.g. for leads-over-chip (LOC) package - involves providing an adhesively coated material with lead-frame superposed on die with active surface adjacent to lead frame

A semiconductor die assembly method comprising the steps of providing a lead frame having a number of lead members, at least one lead member of the number of lead members having longitudinal edges, having a top surface, having a bottom surface, having a lead end portion connected to a portion of the lead frame, having a length, having a thickness, and having a free end portion; providing a die having an active surface having at least one bond pad on it and having at least one outer edge.

lead frame is superposed on the die with the active surface lying adjacent the lead frame and the at least one lead member of the number of lead members extending over a portion of the active surface of the die; and securing a portion of the bottom surface of the free end portion the at least one lead member to one side of the adhesively coated material;

securing a portion of the active surface of the die to the other side of the adhesively coated material; and applying an underfill material to the gap formed between the remaining unsecured portion of the bottom surface of the free end portion of the at least one lead member of the number of lead members and the active surface of the die to eliminate the gap between the at least one lead member of the lead frame and the active surface of the semiconductor die when the lead frame is assembled to it.

USE - For assembling a semiconductor die to a lead frame to eliminate the gap between the lead members of the lead frame and the active surface of the semiconductor die when the lead frame is assembled to it.

COATING LEAD CHIP PACKAGE ADHESIVE COATING MATERIAL LEAD FRAME SUPERPOSED DIE ACTIVE SURFACE ADJACENT LEAD FRAMEE

DERWENT-ACC-NO: 1998-039531

DERWENT-WEEK: 199804

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TITLE: Film bonding method for lead frames used in semiconductor devices - involves drying film coated with adhesive agent comprising thermoplastic polyimide, which is then bonded with lead frames in desired position

----- KWIC -----

Film bonding method for lead frames used in semiconductor devices - involves drying film coated with adhesive agent comprising thermoplastic polyimide, which is then bonded with lead frames in desired position

The method involves drying a film (2) coated with an adhesive agent comprising thermoplastic polyimide in a far infra- red ray heater (4).

After drying, the film is bonded to a lead frame (3) using a punch (5) and punching die (1) assembly.

FILM BOND METHOD LEAD FRAME SEMICONDUCTOR DEVICE DRY FILM
COATING ADHESIVE
AGENT COMPRISE THERMOPLASTIC POLYIMIDE BOND LEAD FRAME
POSITION

DERWENT-ACC-NO: 1997-519051

DERWENT-WEEK: 199748

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TITLE: Adhesive agent application method for lead frame
used in semiconductor
device - involves coating adhesive agent on pre heated
element mounted area of
lead frame

----- KWIC -----

Adhesive agent application method for lead frame used in
semiconductor device -
involves coating adhesive agent on pre heated element
mounted area of lead
frame

The method involves arranging a lead frame (200) on a stage
(107). A heater
(114) preheats the element mounted area of the lead frame
on the stage.

A discharge unit of adhesive agent coater discharges
adhesive agent on the
heated element mounted area of the lead frame through a
nozzle (111). A
controller performs the relative displacement control of
the station nozzle and
temperature of heater.

ADVANTAGE - Suppresses expansion of binding material.
Performs coating without
air bubble generation.

ADHESIVE AGENT APPLY METHOD LEAD FRAME SEMICONDUCTOR DEVICE
COATING ADHESIVE
AGENT PRE HEAT ELEMENT MOUNT AREA LEAD FRAMEE

DERWENT-ACC-NO: 1995-079296

DERWENT-WEEK: 199511

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TITLE: Adhesion method of semiconductor element - involves pasting of semiconductor or element and die pad formed on lead frame by applying adhesive agent in gap between them through nozzle

----- KWIC -----

Adhesion method of semiconductor element - involves pasting of semiconductor or element and die pad formed on lead frame by applying adhesive agent in gap between them through nozzle

The adhesion method of a semiconductor element involved providing a die pad (21) on a lead frame (2). A semiconductor element (1) is positioned above the die pad with a gap 'h' in between by a collet (3). Many penetration holes (22) are formed on the die pad. An adhesive agent is poured towards the gap by a nozzle (41) inserted into the penetration hole. The adhesive agent pasts the semiconductor element and the die pad.

USE/ADVANTAGE - For use in manufacturing semiconductor device. Avoids formation of air bubbles in adhesive agent. Prevents generation of crack of mould resin covering semiconductor element. Provides semiconductor device having high reliability.

ADHESIVE METHOD SEMICONDUCTOR ELEMENT PASTE SEMICONDUCTOR ELEMENT DIE PAD FORMING LEAD FRAME APPLY ADHESIVE AGENT GAP THROUGH NOZZLE